

**COPPER ALLOY FOR LEAD MATERIAL OF SEMICONDUCTOR DEVICE**

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**Abstract**

**PURPOSE:** To improve all heat dissipating property, heat resistance, strength, solderability, plating bondability required for a lead material.

**CONSTITUTION:** 0.001-2.0wt% of total amount of one or more selected from a group which consists of 0.001-0.1wt%, 0.001-0.1wt% of As, 0.001-0.1wt% of Sb, 0.01-1.0wt% of Fe, 0.01-1.0wt% of Co, 0.01-1.0wt% of Cr, 0.01-1.0wt% of Sn, 0.01-1.0wt% of Al, 0.01-1.0wt% of Ti, 0.01-10.0wt% of Zr, 0.01-1.0wt% of Mg, 0.01-1.0wt% of Be, 0.01-1.0wt% of Mn and 0.01-1.0wt% of Zn is added as sub content to an alloy which contains 0.4-4.0wt% of Ni, 0.1-1.0wt% of Si and the residue of copper and unavoidable impurities. When the Si content exceeds 1.0wt%, the workability and the conductivity are remarkably reduced, and the soldability is reduced. Further, when the total amount of the sub content is less than 0.001wt%, an alloy having high strength and corrosion resistance cannot be obtained.

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